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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,840	09/26/2003	John Marvin Ackermann	BUS-025877-DIV#2	1336

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EXAMINER

VORTMAN, ANATOLY

ART UNIT PAPER NUMBER

2835

DATE MAILED: 04/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/672,840	Applicant(s) ACKERMANN, JOHN MARVIN	
	Examiner Anatoly Vortman	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004 (Election).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-20 and 29-42 is/are pending in the application.
- 4a) Of the above claim(s) 19,34-36,40 and 41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-18,20,30-33,37,39 and 42 is/are rejected.
- 7) ☒ Claim(s) 29 and 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Prior Art in Parent Applications

1. The Applicant is hereby advised that Prior Art cited during prosecution of the parent applications 10/302549 and 09/549143 had been reviewed by the Examiner during the examination of the instant application.

Election/Restrictions

2. Applicant's election with traverse of Specie I in Response filed on 03/18/04 is acknowledged. The traversal is on the ground(s) that "species I and II clearly are related". This is not found persuasive, because the aforementioned species comprise the essential components (fusible elements) of very different structure. Thus, the search and examination of specie II would not be relevant to the examination of specie I and would present a serious additional burden on the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

Non-elected claims 19,34-36, 40, and 41, are withdrawn from further consideration.

Elected claims 17, 18, 29-33, 38, 39, and 42, which read on Specie I will be examined along with generic claims 15, 16, 20, and 37. Thus, claims 15-18, 20, 29-33, 37-39, and 42 are at issue in the instant application.

Claim Rejections - 35 USC § 112

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3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The claim recites on several occasions the limitations: "the first end of the weak spot". There is insufficient antecedent basis for these limitations in the claim. There was no mentioning in the parent claims that the weak spots having the ends. The weak spot having the first end had never been positively set forth.

Furthermore, the claim recites: "applying the coating such that the part of the weak spot closest to the first end is covered with the coating and part of the first end of the weak spot closest to the first end is uncovered by the coating" and "applying the coating such that the part of the weak spot closest to the second end is covered with the coating and part of the first end of the weak spot closest to the second end is uncovered by the coating".

The aforementioned recitations are not understood. It is not clear how the claimed conditions can coexist simultaneously, i.e. how the end of the weak spot closest to the respective end of the fuse element can be covered and at the same time uncovered by the coating.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 15-18, 20, 30, 31 as best understood, 32, 33, 37, 39, and 42, are rejected under 35 U.S.C. 103(a) as being unpatentable over US/5,280,261 to Mollet taken with US/3,601,737 to Baird et al., (Baird) or with US/6,160,471 to Rybka et al., (Rybka).

The method steps recited in the claims are inherently necessitated by the device structure as taught by Mollet in view of Baird or in view of Rybka.

Regarding claims 15-18, 20, 30, 31 as best understood, 32, 33, 37, 39, and 42, Mollet disclosed (Fig. 1-3) a precisely identical structure as claimed in the claims, but did not disclose a silicone coating at least partially coating the first and second end portions of the fuse element.

Baird disclosed (Fig. 1-3) a fuse comprising a fuse element (1), wherein a silicone coating (7) at least partially coating the first and second end portions of said fuse element (column 3, lines 1-6).

Since the inventions of Mollet and Baird are from the same field of endeavor, the purpose of silicone coatings disclosed by Baird would be recognized in the invention of Mollet.

It would have been obvious to a person of ordinary skill in the fuse art at the time the invention was made to provide silicone coatings as taught by Baird for the fuse element of Mollet in order to provide fuse of Mollet with the arc constricting capabilities (column 3, lines 1-12).

Regarding claim 20, Mollet disclosed all of the claim limitations as apply to claim 1, but did not disclose that the first and second end conductor elements (30, 31) comprise first and second terminal elements.

Baird disclosed terminal elements (4).

It would have been obvious to a person of ordinary skill in the fuse art at the time the invention was made to modify said end conductor elements in the fuse of Mollet by providing said end elements with terminal elements as taught by Baird, in order to diversify mounting arrangements of the fuse.

Alternatively, Rybka disclosed (Fig. 2-4) a fuse element (100) comprising a strip of conductive metal (102) and having at least one weak spot (108, 110) extending between the ends of said fuse element (100), wherein a silicone arc energy absorbing coatings (118, 120) at least partially coating the first and second end portions of said fuse element between said ends of the fuse element (100) and said weak spot (108, 110) without covering said weak spot (108, 110).

Since the inventions of Mollet and Rybka are from the same field of endeavor, the purpose of silicone coatings disclosed by Rybka would be recognized in the invention of Mollet.

It would have been obvious to a person of ordinary skill in the fuse art at the time the invention was made to provide silicone coatings as taught by Rybka for the fuse element of Mollet in order to provide fuse of Mollet with the arc energy absorbing capabilities.

Regarding claim 30, Rybka additionally disclosed (Fig. 2, 3) that the fuse element (100) includes a first end (24), a second end (26), and a plurality of weak spots (108, 110) having a reduced cross sectional area positioned between said first end (124) and second end (126), said coating (118, 120) is applied to the first (124) and second (126) end portions of the fuse element

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(100) between the first end (124) and a respective one of said weak spots (108) closest to the first end (124), and between the second end (126) and a respective one of said weak spots (110) closest to the second end (126).

Allowable Subject Matter

7. Claims 29 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

claim 29 recites: “incompletely covering at least one of the weak spots with the coating”; and claim 38 recites: “incompletely covering the weak spot with the coating”. The aforementioned limitations in combination with all remaining limitations of the respective claims are believed to render the claims patentable over the art of record.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure:

US/4563809 disclosed fuse comprising fuse element having arc-quenching coatings.

Please, note that the aforementioned reference could have been also sufficient for rejection under 35 USC 102 (b) of at least independent claims 15 and 37.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 571-272-2047. The examiner can normally be reached on Monday-Friday, between 10:00 am and 6:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg can be reached on 571-272-2800, ext 35. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AV



Anatoly Vortman
Primary Examiner
Art Unit 2835